Likewise, the FCC states as follows at paragraph 750 of its *First Report and Order*:

> 383. ***We require, however, that state commissions take steps to ensure that incumbent LECs do not recover nonrecurring costs twice and that nonrecurring charges are imposed equitably among entrants.*** A state commission may, for example, decide to permit incumbent LECs to charge the initial entrants the full amount of costs incurred for shared facilities for physical collocation service, even if future entrants may benefit. A state commission may, however, require subsequent entrants, who take physical collocation service in the same central office and receive benefits as a result of costs for shared facilities, to pay the incumbent LEC for their proportionate share of those costs, less depreciation (if an asset is involved). Under this approach, the state commission could require the incumbent LEC to provide the initial entrants *pro rata* refunds, reflecting the full amount of the charges collected from the subsequent entrants. Alternatively, a state commission may decide to permit incumbent LECs to charge initial entrants a proportionate fraction of the costs incurred, based on a reasonable estimate of the total demand by entrants for the particular interconnection service or unbundled rate elements. *[emphasis added]*

STAND-ALONE LOOP CONDITIONING NRCS RESULT IN DOUBLE RECOVERY FOR THE ILEC

Under a forward-looking, least-cost network design, there exists no basis for assessing loop conditioning charges to CLECs. This stems from the fact that in a forward-looking network design, there is little or no need to place bridged tap, load coils, or repeaters. In the absence of these devices, which inhibit DSL services, there is obviously no cost incurred to remove them. Therefore, in a forward-looking network configuration, loop conditioning would have associated costs of zero dollars, and with no loop conditioning costs to recover, the charges associated with loop conditioning should be eliminated. Over the past few years ILECs throughout the country have developed non-recurring costs associated with loop conditioning that reflect antiquated networks that are neither forward looking, nor least cost. These non-recurring costs result in a double recovery of costs by the ILEC and are completely inconsistent with the TELRIC concept and the FCC rules.

To elaborate, ILECs develop recurring charges for UNEs based on forward-looking cost standards. The recurring rates for DSL-capable loops are priced based on a network specifically designed so that items such as load coils are not necessary. When a CLEC agrees to pay the monthly recurring rate approved by a commission consistent with a forward-looking network methodology the CLEC is paying for a loop that should already be fully capable of providing DSL service. Therefore, additional charges associated with loop conditioning serve only to double recover costs that are already included in the monthly rate. Indeed, it would be inappropriate and inconsistent for the state commissions to allow an ILEC to base its loop rates on forward-looking principles, which may be greater than the costs of a non-TELRIC based network in that context, while it bases its loop conditioning rates on a non-TELRIC network, which are greater than the costs of a TELRIC network in the context of loop conditioning. In other words, such rulings would allow ILECs to vacillate between network assumptions according to whether the particular network assumption produces higher rates for that particular element (either recurring or nonrecurring). This allows the ILECs to maximize their revenues at the CLEC's expense by assuming a forward-looking network to arrive at higher monthly recurring costs, yet assume an embedded network when deriving higher nonrecurring charges. The question becomes: *If CLECs are already paying for a forward-looking network through monthly charges, why should they be subject to additional up-front charges in order to remedy the fact that the embedded ILEC network is not in fact up to those forward-looking standards?*

The above discussion once again highlights the fact that recovering expenses associated with removing load coils, bridged tap, and repeaters is at its very premise, contradictory to setting rates based upon a least cost, forward-looking methodology (*i.e.*, TELRIC principles). What these expenses actually recover are costs associated with "retrofitting" the existing, embedded network. Indeed, (as described previously) a network design based upon the least-cost, most-efficient technology available would result in loop facilities that did not include many of these types of devices. For example, local exchange carriers rarely load loop plant (*i.e.*, place load coils on copper pairs) unless those loops extend beyond 18,000 feet from the central office. Hence, the rates set for an unbundled loop are often based upon an implicit assumption that no load coils will be used. Yet even though ILECs charge the unbundled loop rates set in a TELRIC proceedings, (rates that should already recover costs associated with a loop absent load coils) they also insist that in some cases, additional conditioning charges must be assessed to "retrofit" the existing network by removing load coils.

By attempting to apply conditioning charges associated with retrofitting the embedded network, ILECs are in essence asking carriers to pay rates associated with the latest and greatest technology, yet, when they receive the loops for which they are paying forward-looking rates, they are then asked to pay additional charges to revise the existing network to meet that standard. This is akin to buying a Mercedes for $50,000, being provided a $20,000 Volkswagen, and then being asked to pay an additional $30,000 when you want the performance of the Mercedes for which you originally paid. In total, you will have paid $80,000 to receive the $50,000 Mercedes to which you were entitled with your initial payment. More to the point of this discussion, under typical ILEC proposals, CLECs would be required to pay a monthly rate for a suburban loop that is priced based on forward-looking network standards, and, in addition, the CLEC is asked to pay often in excess of $1000 for the additional costs associated with removing load coils and bridge tap that were assumed not to exist in the first place. If ILECs are allowed to charge both the forward-looking monthly loop rate, as well as costs associated with retrofitting the existing network to a point where it complies with the assumptions included in its TELRIC studies, the state commissions may as well have simply allowed ILECs to establish rates based upon their embedded costs in the first place. Indeed, that is exactly what the end result would be. This result violates the FCC's TELRIC methodology and is detrimental to the growth of advanced services such as xDSL.

Furthermore, it is important to understand that CLECs are already paying for loop conditioning expenses through the recurring TELRIC-based rates for loops. Consider the circumstance wherein an ILEC provides a DSL-capable loop to one of its own retail customers: since the ILECs do not charge their customers special construction charges for conditioning their loops the ILECs generally have two options regarding how to account for the expenses associated with conditioning these loops. The first option is to treat the loop conditioning expenses as maintenance or upgrade expenses and, as such, these costs are booked in such a manner that they will be reflected in the plant-specific USOA accounts. The second option would be to treat the expense associated with loop conditioning as a cost of removal and reduce booked plant investment by the booked cost of load coils, repeaters, *etc* (retirement). In either of these cases the cost of loop conditioning is reflected in the non-recurring rates CLECs pay for loops.

First, if the loop conditioning costs are treated as maintenance or upgrade expenses and booked to the plant-specific USOA account, then these costs become part of the monthly recurring costs for loops through maintenance factors.[16] These maintenance factors are generally determined by taking the

[16] Maintenance factors have also been referred to as plant-specific factors, network factors, and others

plant-specific USOA accounts (6000s accounts) and dividing by the corresponding investment USOA accounts (2000s accounts).[17] The resulting ratio or percentage is then multiplied times forward-looking investment to determine expected maintenance, repair, and upgrade expenses These expected expenses then become part of the direct TELRIC costs, which becomes part of the non-recurring rates charged to CLECs.[18]

In fact, the Oregon Public Utility Commission in its Order No. 98-444 in Docket Nos. UT-138 and UT-139, which was entered in November 13, 1998, stated that "USWC concedes that the labor costs associated with unloading loops are currently included in the maintenance factor used to develop recurring costs." The Oregon Commission then went on to set loop conditioning charge to $0.

In the second case, where loop conditioning costs are addressed through cost of removal and retirement, then CLECs are also paying for these costs through the monthly recurring loop rates. Specifically, the economic life, salvage value, and cost of removal are inputs into the calculation of depreciation factors. These depreciation factors are multiplied times the forward-looking investments to determine the expected depreciation costs (which include both salvage value and cost of removal expenses). These expected depreciation expenses then become part of the direct TELRIC costs, which becomes part of the monthly recurring rates charged to CLECs.[19]

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[17] Sometimes certain non-recurring costs are deducted from the plant-specific account balances prior to the calculation of the maintenance factor, but these are generally associated with service order and provisioning costs, which are captured in other TELRIC studies However, we have never seen an adjustment for items such as loop conditioning

[18] It should be noted that these maintenance expenses are ultimately grossed up with shared and common costs

[19] It should be noted that these depreciation expenses are also ultimately grossed up with shared and common costs

Ultimately, even though it is our opinion that the recovery of loop conditioning is inappropriate given the forward-looking network assumed in the TELRIC studies, it is clear that the ILECs are indeed recovering the loop conditioning costs associated with their embedded networks through the monthly recurring rates charged to CLECs.

LOOP CONDITIONING NRCS ARE A BARRIER TO ENTRY

Efficient competition in the local exchange market cannot be expected to develop unless prices for unbundled network elements are based on cost. This fact was recognized by the United States Department of Justice (DOJ), in its evaluation of the Joint application by SBC Communications, Southwestern Bell Telephone Company, and Southwestern Bell Communications Services for provision of in-region inteLATA services in Kansas and Oklahoma. In its evaluation, the DOJ noted that "Prices which are not properly cost-based act as a barrier to entry; such prices may prevent entry entirely, or limit entry in type or scale".[20]
As the FCC noted in paragraph 194 of the UNE Remand Order, incumbent LECs have strong economic incentives to overstate the costs associated with loop conditioning. This incentive derives from two main areas: first, by overstating the costs associated with loop conditioning, ILECs can generate higher loop conditioning rates that, when charged to CLECs, generate higher levels of revenue than would loop conditioning rates that are consistent with TELRIC methodologies. Secondly, overstated costs and rates for loop conditioning represent significant entry costs that must be borne by CLECs who desire entry into the telecommunications market to provide advanced services such as xDSL. These overstated entry costs represent a serious barrier to CLECs entering and competing in the advanced services market.

[20] Before the Federal Communications Commission, CC Docket No 00-217 Page 10 December 4, 2000

In recognition of the fact that the non-recurring costs ILECs may propose to condition loops represent sunk costs to CLECs, and that those costs may constitute a barrier to entry, the FCC deferred to states to ensure that those costs, imposed by incumbents on competitors, are in compliance with FCC pricing rules for non-recurring costs. When determining the proper interpretation and implementation of its own prescribed TELRIC methodology, the Department of Justice has urged the FCC to consider whether "the end result falls outside the range that the reasonable application of TELRIC principles would produce".[21] As noted above, any charge to CLECs for conditioning is inconsistent with forward-looking TELRIC principles, and establishment of such rates (that could pose a substantial barrier to entry) is clearly not what the FCC intended.

CONCLUSION

Over the past few years, state commissions across the country have taken widely disparate positions concerning the proper recovery of loop conditioning costs, and have set widely disparate conditioning rates. Because conditioning rates do pose an impediment to the development of competition in the advanced services area, the availability of advanced services in particular states will be dependant upon how the state commissions in those states interpret the FCC's TELRIC rules. Misinterpretation of those rules could lead to state commissions adopting excessive loop conditioning rates thereby having a pronounced chilling effect on the development and availability of advanced services in that state. Further clarification on the part of the FCC will provide state commissions with much needed guidance and should result in more consistent and rational loop conditioning rates across the country.

[21] *Id*, page 12

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ATTACHMENT 1

"CONDITIONING" OUTSIDE PLANT FACILITIES FOR PROVISIONING ADVANCED SERVICES

Evolution of Outside Plant Design and Technology Overview

Prepared on behalf of:

mpower Communications

EVOLUTION OF OUTSIDE PLANT DESIGN

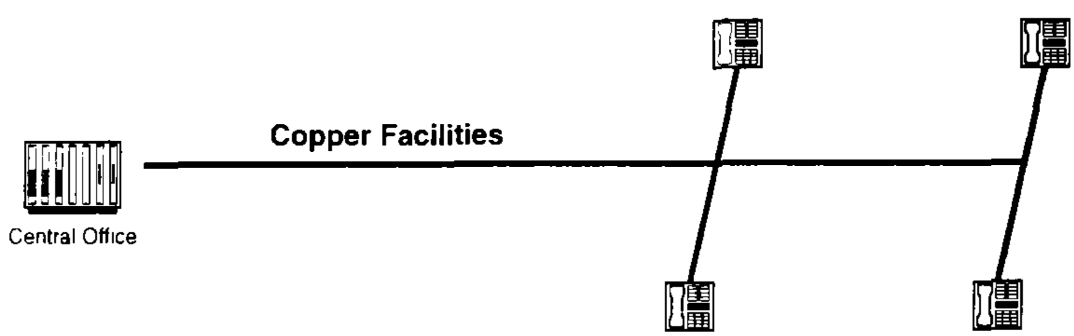
In the telecommunications network "outside plant " refers to the physical facilities that are located outside the telephone company central offices These include copper and fiber cables, supporting structures such as poles, manholes, and conduit, and associated equipment necessary to connect the customer with the switching and interoffice network.

When designing the outside plant, network engineers have to consider the area to be served and the transmission characteristics of copper cables that will be required to provide quality service to that given group of customers. Over the decades various outside plant network designs have evolved.

Prior to the 1960's, multiple outside plant design was utilized. This design gave engineers flexibility in administering the network when customer movement was uncommon and party-line service was commonplace. Under this design the same cable pairs were multipled or appeared in different cables within the network as illustrated in Diagram 1.

Diagram 1

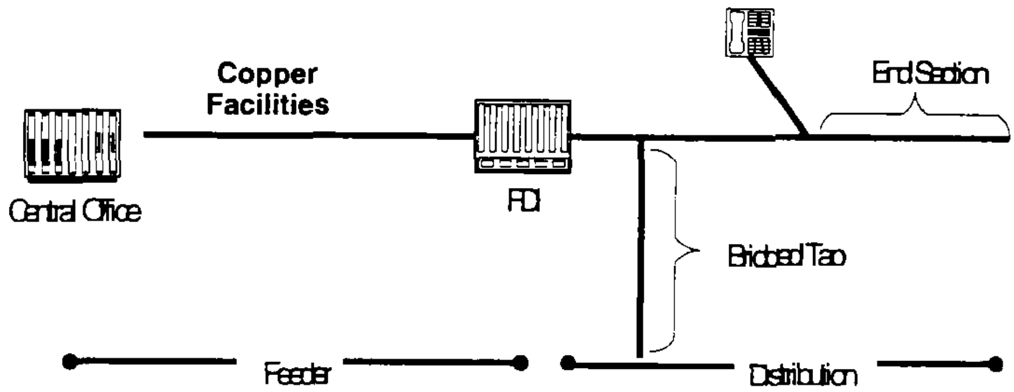
Multiple Plant - Pre 1960's



This outdated design created extensive bridged tap conditions throughout the network. Bridge tap is defined as any section of a cable pair not on the direct electrical path between the central office and the customer (See Diagram 2).

These conditions increase the electrical loss on the pair and because the signal on the pair is split between the bridge and direct path to the customer, they can not support high speed digital circuits.

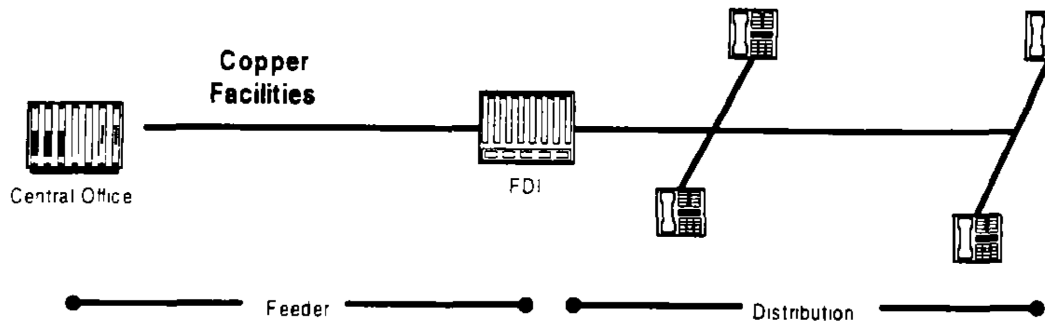
Diagram 2 Bridged Tap



In the 1960's for a short period the local network was designed as Dedicated Outside Plant (DOP). Under this system or design, cable pairs were permanently assigned from the central office main frame to each customer's location through the use of control points and access points. Any facilities that required bridging for party lines had to be bridged in the central office and bridge lifters were necessary to avoid excessive bridged tap loss. This design created numerous maintenance and administrative problems and this network design provided very little flexibility.

To achieve the necessary flexibility and efficient administration of the changing local network in the early 1960's, interfaced plant design guidelines were implemented to mandate the use of a Feeder Distribution Interface (FDI). Under these guidelines a manual cross-connection and demarcation point between the copper feeder facilities and the distribution plant of the local network was established, as shown in Diagram 3.

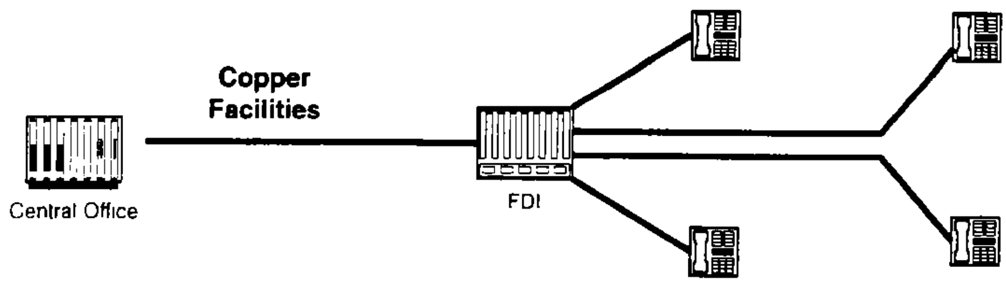
Diagram 3 Interfaced Plant - 1960's

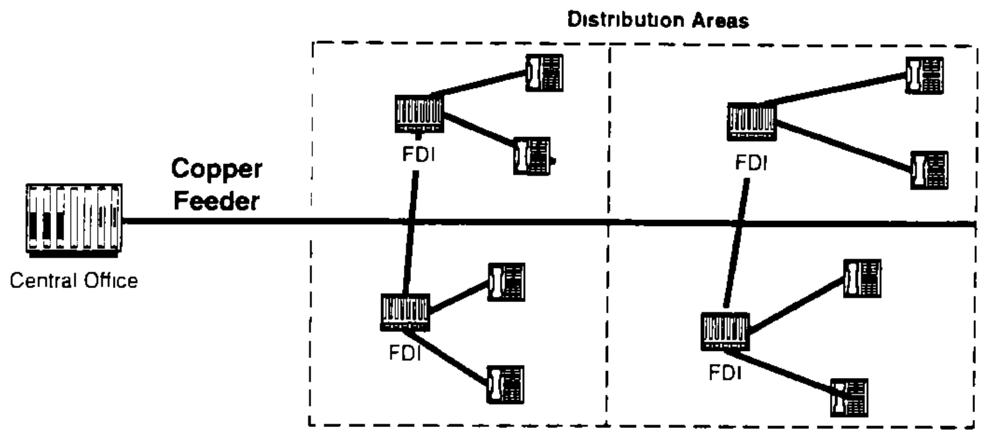


In 1972 interfaced plant guidelines were incorporated into the Serving Area Concept (SAC) design guidelines. Under SAC design the local network is divided into geographic areas referred to as distribution areas or DA's. Distribution areas have defined boundaries, such as streets or roads and typically contained 200 to 600 living units. To ensure proper transmission is achieved for all customers within the entire DA, engineers determine the longest loop from the central office within the DA (referred to as the Design Point) and designed all loops within the DA to meet that requirement. Under these guidelines, it is preferred to use only one distribution gauge within the DA and all loops in the DA should be either loaded or non-loaded with no load coils within the distribution area itself. In SAC design, each living unit is typically assigned at least two pairs in the distribution and, in the feeder segment, one and a half pairs per living unit back to the central office. This design improved the utilization of feeder plant and reduced operating costs.

Diagram 4

Serving Area Concept - 1972





Prior to 1980, loops were usually designed using one of the following design plans: Resistance Design (RD), Long Route Design (LRD), or Unigauge Design (UG). The most common current design plan applied only on a forward-going basis is the Revised Resistance Design (RRD).[1]

Revised Resistance Design is the current design applied to loops less than 24,000 feet and with resistance of 1500 Ohms or less.[2] Under this design the maximum length of nonloaded loops is 18,000 feet which includes any bridged tap.

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[1] Telcordia Notes on the Networks Distribution – Issue 4, October 2000, p 12 1 3

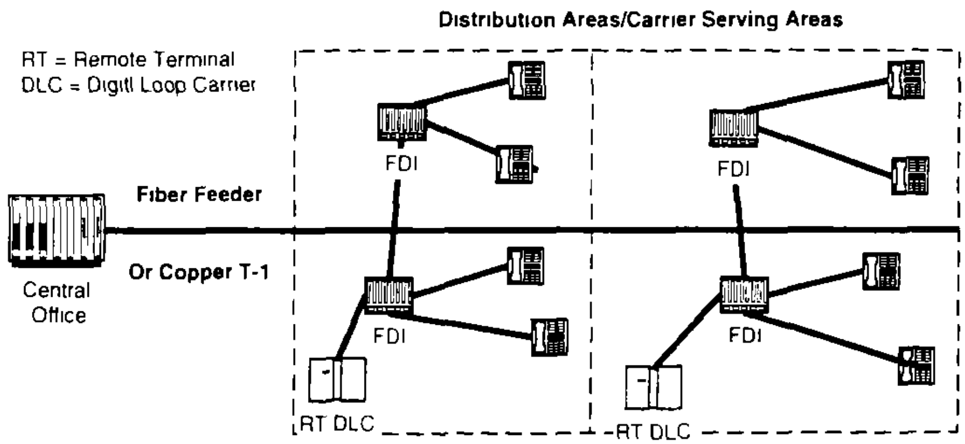
[2] "Loops linger than 24kft, typically found in rural areas, are designed using DLC as first choice " Telcordia Notes on the Networks, Issue 4, October 2000, p 7 15 2

To address the evolution of a network that can provide digital services using distribution plant facilities, the Carrier Serving Area Concept (CSA) was developed in 1980 and is still the prevailing design concept throughout the industry. A CSA is a geographic area that is or could be served by, a Digital Loop Carrier (DLC) from a single remote terminal site and within which all loops, without any conditioning or design, are capable of providing conventional voice-grade message service and, digital data service up to 64 kbps. The maximum loop length in a CSA is 12 kft for 19-, 22-, or 24-gauge cables and 9 kft for 26-gauge cables. These lengths include any bridged-tap that may be present. The maximum allowable bridged-tap is 2.5 kft, with no single bridged-tap longer than 2.0 kft. All CSA loops must be unloaded and should not consist of more than two gauges of cable.

The area around the serving central office within a distance of 9 kft. for 26-gauge cable and 12 kft. for 19-,22-, and 24-gauge cables, although not a CSA, is compatible with the CSA concept in terms of achievable transmission performance and supported services.[3]

Diagram 5

CSA 1980-Present



[3] Telcordia Notes on the Networks Distribution – Issue 4, October 2000, p.12 1 4

Since the 1980's the feeder segment of the network has migrated from a physical copper based facility to a digital network with the extensive deployment of fiber-fed digital loop carrier as the preferred choice of feeder plant. Bellcore's 1987 – 1990 BOC Digital Access Survey clearly indicated adherence to CSA design guidelines and utilization of DLC. Some pertinent statistics from the survey are:

- More than two-thirds (67.3%) of the loops are compatible with CSA guidelines. The main reason for incompatibility of the balance is excessive bridged-tap.
- The average working length of the DLC loop plant is 35,238 feet with a COT to RT length of 29,746 feet, RT to FDI of 1,283 feet (almost one-third of the sampled loops have the RT co-located with the FDI), and the distribution length of 4,209 feet.[4]

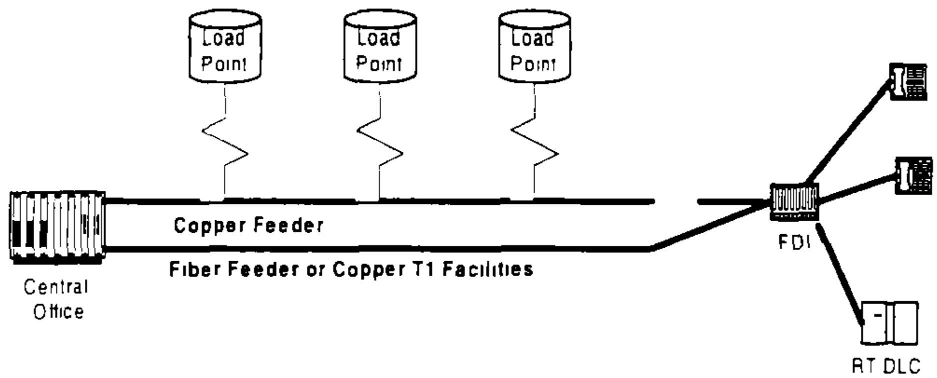
This migration of the distribution network is further reflected in Bellcore's 1993-1998 Loop Plant Analysis from information LECs reported to the FCC in their ARMIS Report 43-07 filings for years 1993-1998. In the period from 1993 to 1998, DLC systems accounted for two-thirds of all new lines. The growth rate of baseband copper is decreasing in the loop plant, because DLC systems are a more economical alternative to copper. Copper-fed DLC deployment is relatively flat, while fiber-fed DLC deployment is steadily increasing [5]

As copper feeder facilities have been replaced by fiber-fed DLC, these copper feeder cables have either been retired or converted to distribution facilities within the network as illustrated.[6]

[4] Telcordia Notes of the Networks Distribution, Issue 4, October 2000, p 12 3 2
[5] Telcordia Notes of the Networks Distribution, Issue 4, October 2000,p 12 3 3
[6] It should be noted, that CSA guidelines would dictate that no loop would require loading from the Remote Terminal DLC, because the maximum loop length is 12 kft for 19, 22 or 24 gauge cables and 9 kft for 26 gauge cables

Diagram 6

**Deployment of Digital Loop Carrier Into the Existing Network
1980 - Present**



In summary the evolution of the local network clearly indicates that all loops since 1980 should have been designed to CSA guidelines and capable of supporting digital services. Under Serving Area Concept (SAC) guidelines that have been used within the telecommunications industry since 1972, all loops within the entire distribution area have the same transmission characteristics. They would consist of the same copper gauge, with no bridged-tap or limited bridged-tap. If these design guidelines were properly followed, the necessity to "condition" cable pairs for the provisioning of xDSL services has been eliminated

TECHNOLOGY OVERVIEW

xDSL TECHNOLOGY

DSL is a technology initially developed for purposes of increasing the digital transmission speeds that can be realized with the use of traditional copper-based loop facilities. ADSL, or *asynchronous digital subscriber line*, is a member of a larger family of technologies generally referred to as xDSL. The "x" in xDSL is generally used as a placeholder for purposes of identifying more specific derivations of the digital subscriber line technology (i.e. HDSL –high speed DSL, VDSL – very high speed DSL, UDSL universal DSL and RDSL – rate adaptive DSL). Generally, xDSL technologies use a system of digital transceivers placed on each end of a transmission medium (generally two or four copper wires) to transmit digital information at rates far exceeding those typically achieved by other types of copper loop transmission. xDSL technologies support a number of consumer data applications including wide area networking for purposes of telecommuting as well as high-speed internet access that greatly exceeds the speed achieved by a standard 56Kbs modem.

Generally speaking, ADSL's two transceivers use a typical non-loaded copper loop to transmit a digital data stream between the customer's premise and a packet switched network node that usually resides in the local exchange carrier's central office ("C.O ") Using complex digital compression techniques, ADSL supports substantial bandwidth on the "downstream" channel (i e from the packet switched network to the customer's premises) while supporting a more modest transmission capacity on the "upstream" channel (i.e. from the customer's premises to the C.O.). It is this "asynchronous" bandwidth capability that separates ADSL from other xDSL technologies like HDSL which provides T1 transmission (1.544 Mbs) symmetrically in both directions. ADSL is engineered to overlay existing analog telephone service by avoiding the use of frequencies in the range of 0 to 20 kHz where POTS reside within the transmission medium. In the telecommunications industry, the term "line sharing" or "line splitting" is the use of a single loop to provide both POTS and certain high-bandwidth xDSL digital transmission capabilities between a customer's premises and the central office. Such splitting is possible because voice traffic occupies a narrow bandwidth in the lower end of the spectrum available on a loop, traditionally accepted in the industry to be between 300 and 3400 Hz. For those types of xDSL services that permit line sharing, xDSL traffic occupies the high end of the spectrum available on a loop, (i.e., above 4000 Hz). Therefore, both low-bandwidth pots and high-bandwidth xDSL can coexist on a single physical loop. The following chart illustrates how the bandwidth spectrums or frequencies are utilized or "split".

0 - .004 MHz	.004 MHz - .020 MHz	.02 MHz - .16 MHz	.16 Mhz - .24 MHz	.24 MHz - 1.1 MHz
Voice or Power spectrum	"guard" spectrum (separation)	DSL " Upstream" data spectrum	"guard" spectrum (separation)	DSL "Downstream" data spectrum
<u>Discrete Multi-tone(DMT) Bandwidth - Splitting</u>				

Said another way, ADSL is provisioned such that given the proper equipment, a customer can realize the high-speed data capabilities of the ADSL technology while at the same time continuing to use the same telephone line for traditional voice services.

xDSL TECHNOLOGIES AND THE COPPER NETWORK

xDSL technologies are limited in the extent to which they can utilize existing copper loops that exceed a particular length. Likewise, individual characteristics beyond the simple length of the loop can impact the quality (i.e. bit rate or bit error ratio) of the xDSL transmission. For example, excessive bridged tap, load coils or repeaters within the loop render a loop unusable for xDSL transmission.

INCOMPATABILITY OF xDSL TECHNOLOGIES AND DISTURBERS

Load coils, bridged taps and repeaters are often referred to as "disturbers" because these devices or conditions interfere with the ability of the two xDSL modems to communicate effectively. This inability to communicate effectively can either impede the system of potential data transmission speed (by reducing the amount of data that can be transferred per second) or, it can degrade the transmission to an extent where the bit error ratio is unacceptable (i.e. the ratio of legitimate "bits" of data received by the device at either end compared to erroneous "bits" is so high that the transmission is rendered unusable). The impact of how each individual "disturber" affects the xDSL transmission is described in greater detail below.

BRIDGED TAP

Bridged tap is defined as any section of a cable pair not on the direct electrical path between the central office and the customer. These conditions increase the electrical loss on the pair and because the signal on the pair is split between the bridge and direct path to the customer, they can not support high speed digital circuits.

LOAD COILS

Load coils are analog loop conditioning devises used to improve the voice transmission on long loops typically greater than 18,000 feet. These coils insert inductance on the cable pair to offset the effect of capacitance that has occurred from the two electrically charged wires of the cable pair extending over long distances. While load coils improve the voice transmission they block or filter the transmission of high frequency bandwidth. Generally speaking, a load coil on a loop "amplifies" a given analog signal by boosting the entire voice band channel such that it can be "heard" on loops extending farther from the original point of analog transmission (generally the central office switch).

xDSL technology operates in the high-speed frequency range of a copper loop. Load coil inductance alters the rate at which data is transmitted through the loop creating unacceptable fluctuations in bit rate speed and quality thereby degrading the overall performance of the transmission. Said another way, the load coil's generally required purpose of "amplifying" an analog signal isn't conducive to the digital communication that occurs between the two xDSL modems. In effect, the load coil's inductance, by electronically amplifying the digital signal, alters the signal in a manner such that it isn't recognized by the xDSL modem at the other end of the communication pathway.

REPEATERS

Repeaters were used in a number of different scenarios in the provisioning of outside loop plant. Repeaters come in the form of Voice Frequency Repeaters ("VFRs") or digital repeaters. Voice Frequency Repeaters can be categorized in two classes; Central Office-Mounted and Field Mounted. Central Office-Mounted repeaters are required on customer loops when the 1000 Hz transmission loss exceeds the 8.0 dB limit (i.e. the voice grade standard). Field-Mounted VFR's were generally used for circuits with resistance greater than 2800 ohms. The use of analog voice repeaters has long since been replaced as the local network has evolved and their appearance may only occur in very isolated situations. If analog voice repeaters were present, they would significantly distort the data stream resulting in high bit-rate error ratios that would ultimately result in unacceptable transmission levels However their use is not applicable in the design of today's network.

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- Former member of the AT&T / Missouri Commission Staff, *Total Quality Management Forum* responsible for improving and streamlining the regulatory process for competitive carriers
- Former member of the Missouri, Oklahoma, Kansas, Texas, and Arkansas five state Southwestern Bell Open Network Architecture (ONA) Oversight Conference
- Former delegate to the Illinois, Michigan, Indiana, Ohio, and Wisconsin Ameritech Regional Regulatory Conference (ARRC) charged with the responsibility of analyzing Ameritech's "Customers First" local exchange competitive framework for formulation of recommendations to the FCC and the U.S. Department of Justice
- Former member of both the Illinois and Maryland Local Number Portability Industry Consortiums responsible for developing and implementing a permanent data-base number portability solution

Testimony Profile and Experience

Before the Tennessee Regulatory Authority
Docket No 00-00544
Generic Docket to Establish UNE Prices for Line Sharing per FCC 99-355, and Riser Cable and Terminating Wire as Ordered in Authority Docket No. 98-00123
On behalf of Covad Communications, Inc , Mpower Communications and BroadSlate Networks of Tennessee, Inc

Before the Public Utilities Commission of the State of Hawaii
Docket No 7702, Phase III
Instituting a Proceeding on Communications, Including an Investigation of the Communications Infrastructure of the State of Hawaii
On behalf of GST Telecom Hawaii, Inc

Before the North Carolina Utilities Commission
Docket P100 Sub 133d, Phase II
General Proceeding to Determine Permanent Pricing for Unbundled Network elements
On behalf of a consortium of 13 new entrant carriers

Before the Federal Communications Commission
CCB/CPD No 00-1
In the Matter of Wisconsin Public Service Commission Order Directing Filings
On behalf of the Wisconsin Pay Telephone Association

Before the North Carolina Utilities Commission

Docket P100 Sub 133d, Phase I
General Proceeding to Determine Permanent Pricing for Unbundled Network elements
On behalf of a consortium of 13 new entrant carriers

Before the Public Utilities Commission of the State of California
Rulemaking 0-02-05
Order Instituting Rulemaking on the Commission's Own Motion into reciprocal compensation for telephone traffic transmitted to Internet Service Providers modems
On behalf of ICG Telecom Group, Inc.

Before the Public Utilities Commission of the State of Colorado
Docket No 00B-103T
In the Matter of Petition by ICG Telecom Group, Inc for Arbitration of an Interconnection Agreement with US West Communications, Inc Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the Delaware Public Service Commission
PSC Docket No 00-205
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic – Delaware, Inc
On behalf of Focal Communications Corporation of Pennsylvania

Before the Georgia Public Service Commission
Case No 11641-U
Petition of Bluestar Networks, Inc for Arbitration with BellSouthDocket No 11641-U Telecommunications, Inc pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of BlueStar Networks, Inc

Before the New Jersey Board of Public Utilities
Docket No TO00030163
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic-New Jersey, Inc
On behalf of Focal Communications Corporation

Before the Pennsylvania Public Utility Commission
Docket No A-310630F 0002
For Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Bell Atlantic-Pennsylvania
On behalf of Focal Communications Corporation

Before the Michigan Public Service Commission
Case No U-12287
In the matter of the application, or in the alternative, complaint of AT&T COMMUNICATIONS OF MICHIGAN, INC against Michigan Bell Telephone Company, D/B/A, Ameritech Michigan
On behalf of AT&T Communications of Michigan, Inc

Before the Missouri Public Service Commission
Case No 99-483

An Investigation for the Purpose of Clarifying and Determining Certain aspects Surrounding the Provisioning Of Metropolitan Calling Area Services After the Passage and Implementation Of the Telecommunications Act of 1996
On behalf of McLeodUSA Telecommunications Services, Inc

Before the Illinois Commerce Commission
Docket No 98-0396
Investigation into the compliance of Illinois Bell Telephone Company with the order in Docket 96-0486/0569 Consolidated regarding the filing of tariffs and the accompanying cost studies for interconnection, unbundled network elements and local transport and termination and regarding end to end bundling issues
On behalf of AT&T Communications of Illinois, Inc and McLeodUSA Telecommunications Services, Inc

Before the Illinois Commerce Commission
Docket No 99-0593
Investigation of Construction Charges
On behalf of McLeodUSA Telecommunications Services, Inc., MCI WorldCom, Inc and Allegiance Telecom, Inc

Before the Public Service Commission of Wisconsin
Case No 05-TI-283
Investigation of the Compensation Arrangements for the Exchange of Traffic Directed to Internet Service Providers
On behalf of AT&T Communications of Wisconsin, AT&T Local Services, KMC Telecom, Inc , MCI WorldCom, Inc , McLeodUSA Telecommunications Services, Inc , TDS MetroComm, Time Warner Telecom

Before the Public Utility Commission of Texas
Docket No 21982
Proceeding to Examine Reciprocal Compensation Pursuant to Section 252 of the Federal Telecommunications Act of 1996
On behalf of ICG Communications, Inc

Before the Public Service Commission of the Commonwealth of Kentucky
Case No 99-498
Petition of BlueStar Networks, Inc for Arbitration with BellSouth Telecommunications, Inc Pursuant to Section 252 of the Telecommunications Act of 1996
On behalf of BlueStar Networks, Inc

Before the Illinois Commerce Commission
Docket No 00-0027
Petition for Arbitration Pursuant to Section 252(b) of the Telecommunications Act of 1996 to Establish an Interconnection Agreement with Illinois Bell Telephone Company d/b/a Ameritech Illinois
On behalf of Focal Communications Corporation of Illinois

Before The Indiana Utility Regulatory Commission
Cause No 41570
In the Matter of the Complaint of McLeodUSA Telecommunications Services, Inc against Indiana Bell Telephone Company, Incorporated, d/b/a Ameritech Indiana, Pursuant to the Provisions of

I C §§ 8-1-2-54, 81-12-68, 8-1-2-103 and 8-1-2-104 Concerning the Imposition of Special Construction Charges.
On behalf of McLeodUSA Telecommunications Services, Inc

Before the Florida Public Service Commission
Docket No 991838-TP
Petition for Arbitration of BlueStar Networks, Inc with BellSouth Telecommunications, Inc Pursuant to the Telecommunications Act of 1996
On behalf of BlueStar Networks, Inc

Before the Public Utility Commission of Ohio
Case No 99-1153-TP-ARB
In the Matter of ICG Telecom Group, Inc 's Petition For Arbitration of Interconnection Rates, Terms and Conditions and Related Arrangements with Ameritech Ohio
On behalf of ICG Telecom Group, Inc

Before the Public Utility Commission of Oregon
ARB 154
Petition for Arbitration of GST Telecom Oregon, Inc. Against US West Communications, Inc Under 47 U S C §252(b)
On behalf of GST Telecom Oregon, Inc

Before the Michigan Public Service Commission
Docket No U-12072
In the matter of the application and complaint of WORLDCOM TECHNOLOGIES INC (f/k/a MFS INTELENET OF MICHIGAN, INC., an MCI WORLDCOM company) against MICHIGAN BELL TELEPHONE COMPANY d/b/a AMERITEHC MICHIGAN, AMERITECH SERVICES, INC., AMERITECH INFORMATION INDUSTRY SERVICES, AND AMERITECH LONG DISTANCT INDUSTRY SERVICES relating to unbundled interoffice transport
On behalf of WorldCom Technologies, Inc

Before the Illinois Commerce Commission
Docket No 99-0525
Ovation Communications, Inc d/b/a McLeodUSA, Complaint Against Illinois Bell Telephone Company d/b/a Ameritech Illinois, Under Sections 13-514 and 13-515 of the Public Utilities Act Concerning the Imposition of Special Construction Charges and Seeking Emergency Relief Pursuant to Section 13-515(e)
On behalf of McLeodUSA

Before the Public Service Commission of the Commonwealth of Kentucky
Case No 99-218
Petition of ICG Telecom Group, Inc for Arbitration with BellSouth Telecommunications, Inc Pursuant to Section 252 of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the Tennessee Regulatory Authority
Docket No 1999-259-C
Petition for Arbitration of ITC^DeltaCom Communications, Inc with BellSouth Telecommunications, Inc Pursuant to the Telecommunications Act of 1996
On behalf of ICG Communications, Inc

MICHAEL STARKEY
PROFESSIONAL INFORMATION

Before the New Mexico Public Regulation Commission
Case No 3131
In the Matter of GST Telecom New Mexico, Inc 's Petition for Arbitration Against US West Communications, Inc , Under 47 U.S C § 252(b)
On behalf of GST Telecom New Mexico, Inc

Before the Georgia Public Service Commission
Docket No 10767-U
Petition of ICG Telecom Group, Inc for Arbitration with BellSouth Telecommunications, Inc Pursuant to Section 252 of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the Public Service Commission of New York
Case No 99-C-0529
Proceeding on Motion of the Commission to Re-examine Reciprocal Compensation
On behalf of Focal Communications, Inc

Before the Florida Public Service Commission
Docket No 990691-TP
Petition by ICG Telecom Group, Inc for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the Louisiana Public Service Commission
Docket No U-24206
Petition for Arbitration of ITC^DeltaCom Communications, Inc with BellSouth Telecommunications, Inc Pursuant to the Telecommunications Act of 1996
On behalf of ITC^DeltaCom, Inc

Before the South Carolina Public Service Commission
Docket No 199-259-C
Petition for Arbitration of ITC^DeltaCom Communications, Inc with BellSouth Telecommunications, Inc Pursuant to the Telecommunications Act of 1996
On behalf of ITC^DeltaCom, Inc

Before the Alabama Public Service Commission
Docket No 27069
Petition by ICG Telecom Group, Inc for Arbitration of an Interconnection Agreement with BellSouth Telecommunications, Inc Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the State of North Carolina Utilities Commission
Docket No P-582, Sub 6
Petition by ICG Telecom Group, Inc for Arbitration of Interconnection Agreement with BellSouth Telecommunications, Inc Pursuant to Section 252(b) of the Telecommunications Act of 1996
On behalf of ICG Telecom Group, Inc

Before the Missouri Public Service Commission
Case No TO-99-370